DOCUMENT RESUME

ED 253 037 EC 171 372

AUTHOR Smith, Kim Stevens
TITLE Stress Management in Gifted Education.
PUB DATE Apr 84
NOTE 68p.
PUB TYPE Reference Materials - Bibliographies (131) -- Information Analyses (070)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Elementary Secondary Education; Fantasy; *Gifted; Imagery; Intervention; *Relaxation Training; *Stress Variables; *Time Management

ABSTRACT

This annotated bibliography was designed to examine the nature and effects of stress, with particular emphasis on gifted students. Following a brief glossary of 33 terms, 53 citations are presented in three major sections: a general overview of stress, stress and the gifted child, and selected stress management techniques (relaxation, imagery, and time management). Annotations are arranged alphabetically by author's last name and include title, source, publication information date, and a brief abstract. A separate chapter summarizes the six major concluding recommendations and suggests the need for incorporation of stress management into a gifted education curriculum. Appended are reprinted charts and tables, a sample lesson plan for a relaxation session, and a sample guide to a guided imagery and mediation session. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED253037

STRESS MANAGEMENT

IN

GIFTED EDUCATION

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Kim S Smith
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BY

KIM STEVENS SMITH

Study Directed

by

Charles R. DuVall, Ph.D.

EC171372

Submitted in partial fulfillment of the requirements
for the course E591--Exit Project
Indiana University at South Bend
April, 1984

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Statement of the Problem	2
Purpose of the Study	3
Organization of the Study	4
GLOSSARY	5
ANNOTATIONS	10
Stress - A General Overview	10
Stress and the Gifted Child	18
Selected Stress Management Techniques	24
Relaxation	24
Imagery	30
Time Management	35
SUMMARY	41
CONCLUSION	48
RECOMMENDATIONS	49
BIBLIOGRAPHY	50
APPENDIX	54

INTRODUCTION

The negative effects of stress are not limited to adults in modern society. Children often exhibit the symptoms of stress disease (Elkind 1981:146) resulting from an inability to deal with stressful pressures. The gifted child may have additional pressures placed on him/her by parents, teachers, peers, and self. J.R. Whitmore, in her book, Giftedness, Conflict, and Underachievement (1980), lists concomitant difficulties associated with traits of the gifted child (Appendix B). A gifted child's sensitivity and perceptiveness may lead to physical and emotional tension, and feelings of isolation. Feelings of inadequacy and unrealistic expectations stem from a tendency towards perfectionism. The gifted child's independence and learning style may lead to frustration with traditional educational methods. His/her advanced skills and verbal facility may result in class domination, and peer and teacher resentment and rejection.

These difficulties and pressures are potential stressors for the gifted child. Therefore, as schools seek to meet the needs of the gifted child, the essential coping skills of stress management must be included in the curriculum.

STATEMENT OF THE PROBLEM

The following have been determined to be needs of the gifted in the differentiated curriculum necessary to provide appropriate education:

1. to be challenged by activities allowing them to operate at complex levels
2. to be challenged by opportunities for divergent production
3. to be challenged through group and individual work demonstrating process/product outcomes
4. to be challenged by discussions among intellectual peers
5. to be challenged by experiences which promote understanding of human value systems
6. to be challenged by the opportunity to see interrelationships in all bodies of knowledge
7. to be challenged by special courses in their areas of strength and interest
8. to be challenged by greater exposure to new areas of learning within and without the school system
9. to be challenged by the opportunities of applying abilities to real problems in the world
10. to be taught the following skills:
    - critical thinking
    - creative thinking
    - research
    - problem solving
    - coping with exceptionality
    - decision making
    - leadership

(VanTassel-Baska 1981)

To this last skills list it is proposed to add the following:

stress management - including relaxation methods, imagery, and time management

PURPOSE OF THE STUDY

This study will examine the nature and effects of stress in general, stress and the gifted child in particular, and three stress management techniques. Though various methods exist for coping with stress, three were chosen for this examination because of their relevance to the needs of the gifted child. Relaxation training is most often chosen as a stress management method because of its success in countering the physical effects of distress. Imagery is often paired with relaxation training, and its importance to the creative process complements the gifted child's creative, divergent thinking abilities. As a result of his/her advanced abilities, the gifted child often pursues many activities and goals concurrently. Time management aids an individual in setting goals and priorities and acting on them in an organized and efficient manner.

Used in combination, these techniques will provide a firm base for coping with distress, while enhancing eustress. They will guide the gifted child's energies and abilities to greater advantage and fulfillment.

ORGANIZATION OF THE STUDY

An annotated bibliography will be used to review the following areas:

- stress - a general overview
- stress and the gifted child
- selected stress management techniques:
  - relaxation
  - imagery
  - time management

Within each section, annotations will be arranged alphabetically by author. Definition of terms will be provided in a glossary, and appendixes with sample management worksheets and relaxation/imagery sessions scripts will be included.

GLOSSARY

alpha training -- "the mind controlling the body through consciously achieving brain wave patterns yielding an alert, non-focused but relaxed state. Alpha training assists the individual in eliciting the relaxation response which helps the body's natural, self-healing mechanisms." (Matthews 1981:1)

altruistic egotism -- "patterned after the example of multicellular organisms, cooperative "mutual insurance" groups successful through teamwork, combining the advantages of the few and those of the many." (Selye 1974:135)

attribution theory of control -- differentiates between components of luck, effort, ability, and task difficulty. (Stipek and Weisz 1981)

Bell sense -- "named for Sir Charles Bell, a physiologist. The feeling accompanying muscle contraction, the difference between active and passive muscles." (Frederick 1979:4)

biofeedback -- "a special kind of information one obtains when the body is connected with highly specialized apparatus which can magnify signals that are generated internally and seldom perceived." (Frederick 1979:15)

bracing -- "when muscles are persistently contracted, often not conciously so. Tension related disorders result, such as bruxism, high blood pressure, headaches, test anxiety, and insomnia." (Frederick 1979:4)

chronic stress -- "demands of a prolonged and intense nature for which personal resources (physical, emotional, cognitive, interpersonal, social) are insufficient, resulting in health problems, body breakdown, and if continued and not managed with appropriate responses, death of the system." (Thoresen and Eagleston 1983:48)

deep muscle relaxation -- similar to progressive relaxation, the student is taught to be aware of the difference between tense and relaxed muscles, and to control these conditions at will. (Proeger and Myrick 1980)

distress -- "harmful, unpleasant stress." (Selye 1974:147)

eustress -- "stress of a positive nature, from 'eus', Greek prefix meaning 'good'." (Sparks 1981:5)

fight or flight -- "an inborn, predictable response to acute and chronic stressful situations. Blood pressure, heart rate, rate of breathing, blood flow to the muscles, and metabolism are increased, preparing for conflict or escape." (Benson 1976:17)

General Adaptation Syndrome (GAS) -- "the manifestations of stress in the whole body, as they develop in time. Includes three distinct stages: alarm reaction, stage of resistance, stage of exhaustion." (Selye 1956:308)

guided imagery -- "relaxed imagery, individual exploration of thoughts and self, expanding creative thinking." (Morris 1976:27)

holistic health -- "responsibility for well being through personal habits, lifestyle, and environmental factors." (Sparks 1981:19)

homeostasis -- "the body's tendency to maintain a steady state despite external changes; physiologic stability." (Selye 1956:11)

intrinsic motivation theory of control -- in competence motivation, success reinforces a sense of competence if attributed to internal factors, such as ability rather than luck. In the self-determination theory, the focus is on the context more than the outcome. The individual views him/herself as being able to choose or being told what to choose. (Stipek and Weisz 1981)

meditation -- "focusing or centering of one's awareness on a particular theme and a corresponding withdrawal of attention from ordinary mundane thoughts." (Morris 1976:22)

procrastination -- "a self-deceiving avoidance behavior often characterized by negative self-talk, time related excuses for poor performances, stimulation through last-minute deadlines, inability to break large tasks into smaller ones, and feelings of guilt, worry, and anxiety that block motivation and enjoyment of leisure time." (Ottens 1982:371)

relaxation response -- "an ingrained physical response corresponding to the fight or flight emergency reaction. During the relaxation response time, physical changes occur, such as decreased oxygen intake, heart rate, and respiratory rate, with an increase in alpha brain waves." (Benson, Beary, and Carol 1974:38)

relaxation techniques -- "deliberate, conscious processes to reduce tension in the body and return it to healthier functioning." (Sparks 1981:24)

social learning theory -- views each person as having a "locus of control". A person who believes their own actions affect situations and outcomes has an internal locus of control. Those believing their actions and behaviors do not make a difference because the environment acts on them are externally controlled. (Stipek and Weisz 1981)

stress -- "the state manifested by the specific syndrome which consists of all the nonspecifically induced changes within a biologic system. The sum of all nonspecific changes caused by function or damage, or the rate of wear and tear in the body." (Selye 1956:311)

stress diseases -- "the body's response to unrelieved stress reactions, including peptic ulcers, headaches, hypertension, and heart disease." (Elkind 1981:146)

stressors -- "situations, events, or people who produce stress reactions." (Elkind 1981:142)

systematic desensitization -- "consciously relaxing muscles, during which anxiety producing situations are described. The goal is to remain relaxed throughout situations of increased anxiety potential." (Proeger and Myrick 1980:12)

tension -- "in the sense of muscular contraction, hypertension, or too much muscular contraction. Tension conveys the sense of "doing", while relaxation conveys the sense of "not doing"." (Frederick 1979:24)

test anxiety -- "the student knows the course material, but, because of anxiety is unable to demonstrate knowledge on an examination." (Tryon 1980:347)

time management -- "conscious and deliberate actions, both previous and present, resulting in economies of time for the future." (Walker and Parkhurst 1982:58)

time urgency -- "preoccupation with deadlines and attempting to do more in less and less time." (Gastorf 1980:299)

turtles and racehorses -- "Selye's terms for the extreme ends of a continuum of different aptitudes of stress and lifestyle. Turtles are peaceful and slow moving; racehorses are fast-paced and busy. Eustress and distress vary greatly for these opposite types." (Sparks 1981:6)

Type A behavior pattern -- "typical behaviors include impatience, competitiveness, time-bound attitude, verbally emotional, resistance

to recreation and relaxation, and outward signs of tension. Type A people suffer from a lack of stress management and are more susceptible to heart ailments." (Randall 1980:6)

Type B behavior pattern -- "characteristics may include a more balanced perspective of time and life, less hostile actions in frustrating situations, ability to easily relax physically and mentally, and a non-perfectionist attitude." (Randall 1980:7)

unsuccessful coping -- "the negative results of stress manifested in tension, anxiety, and physiological or emotional symptoms." (Clemens and Mullis 1981:2)

ANNOTATIONS

STRESS - A GENERAL OVERVIEW

Allen, Roger J., Evaluation of Stress Management Education: The University of Maryland Model, Educational Resources Information Center, ED 217 204, n. pub., College Park, Maryland, 1980.

This study evaluated the efficacy of a University of Maryland stress management course. The author compared the program group with a control group of students from other health courses. The following factors were evaluated pre and post course: EMG muscle tension, pulse rate, pulse amplitude, skin potential response, psychometric measures of Type A/Type B behavior, locus of control, and manifest anxiety (p.5).

Significant post-test differences were found between the two groups. The stress program group was lower in muscle tension, exhibited a decreased stress response for physiological reactions, showed decreased manifest anxiety and a shift towards an inner locus of control (p.12). There was no change in basic orientation towards Type A or Type B patterns.

Allen thus determined that the program is effective. He concludes that the shift towards an inner locus of control is particularly vital to stress management, citing research in the importance of self-control. Further research is planned to check for lower incidence of disease among program participants, and to determine long term effects of the course.

Cassel, Russell N., "The Computerized-Biofeedback Personal Needs Map (STRMAP)," Education 103:210-214, Spring, 1983.

A computer is used to assess stressors in various "life-space" (p.210) categories, including home and family, social and affiliation, health and safety, and productivity and money. Two tests are used, corresponding to the dominant, cognitive, conscious side of the brain and the non-dominant, subconscious side. The dominant side responds to a true-false questionnaire. Points are assigned for the responses, higher scores indicating greater stress. The non-dominant side responds to slide pictures while muscle tension and galvanic skin response are measured. The scores resulting from these three measurements are plotted on a printout. Areas of stress for each life-space category are thus shown, indicating areas of concern and direction for counseling.

Cassel relates stress to an individual's needs; needs not being met are areas of higher stress. Also mentioned as a stressor is the Western culture's emphasis on high achievement and perfection. While stress can be a motivating force, frustration resulting from non-attainment of unrealistic goals triggers the GAS response while appropriate physical outlets are lacking. As a result, stress and cardio-vascular disease are prevalent in Western society.

Daniels, Craig E., Computer Analyzed Stres-Episode Cards: A Self-Awareness Feedback Technique, Educational Resources Information Center, ED 214 037, Paper presented at the Annual Meeting of the Eastern Psychological Association, New York, April 22-25, 1981.

The initial goals of stress management programs are to have participants become aware of stress, stressors, and the resulting individual reactions. Management programs usually suggest participants maintain a stress diary, often a faulty procedure with a low completion rate. Daniels' 3x5 inch pre-printed computer cards provide an alternative. Quick to complete as soon as possible after the stressor, the cards include information to check off on how stressful the event was, feelings, body responses, and the people involved. Computer analysis of the cards aid in recognizing individual stress patterns.

Daniels lists the positive aspects of his system. The cards are easy and fast to complete, appealing to Type A people, and the computer data printouts are a popular type of information review and are easy to interpret, providing a motivating force to continue a stress management program.

Gmelch, Walter H., "Stress for Success: How to Optimize Your Performance," Theory into Practice 22:7-14, Winter, 1983.

Gmelch reviews the negative effects of too little or too much stress on performance. His position is based on a study of four Little League teams' stress and performance at the plate. The study found batting performance increased with arousal level, to a point, when the pitcher's ability was constant. The batter's performance decreased as the pitcher's ability increased when the batter's arousal was held constant. From this study, Gmelch postulates the conditions of optimum job performance, including stimulation and perception of ability and task difficulty.

A flow chart (Appendix A) illustrates the relation between stress and performance, and this relation is graphed as an inverted u, a continuum from understimulation to optimum stimulation to over stimulation. Characteristics of each stage are listed, with suggestions for remediation given for the undesirable zones. To maintain optimum performance, Gmelch suggests the following: set goals, be in control by managing self, time, and job, participate in health and fitness activities, and be aware of personal stress patterns.

Graff, Dawn, editor, "Student Stress," Current Health 1 7:3-8, November, 1983.

Stress is explained as a reaction to special situations. Stress can be positive when it prods an individual to action, and negative when too much produces negative effects. These effects vary with the individual. Examples are given of typical stressful situations throughout a student's day. Suggestions for coping with negative stress effects are provided, including relaxation, time management, and physical exercise.

Holmes, Thomas H., and Rahe, Richard H., "The Social Readjustment Rating Scale," Journal of Psychosomatic Research 11:213-218, 1967.

Based on the research of Adolph Meyer and Harold G. Wolff, both of whom found similar occurances of high stress life events in patients with major illnesses, Holmes and Rahe developed a scale of magnitude for common events that require changes in life patterns.

Three hundred ninety-four people were asked to rate the "average degree of readjustment necessary" (p.213) of 43 life events, comparing each to a selected average value of 500 points for marriage. The life events, though each unique, fell into two categories - those involving changes in life style, and those arising from a specific event happening to, or involving the person. Importance was placed on the necessary changes and adjustments, not personal meaning or desirability of the event. Positive events can be viewed as stressful as negative or non-desirable events.

Basic overall agreeement was found among the subjects, regardless of sex, age, race, or social class. The events were ranked and assigned final stress value points. The authors view the scale to be useful for psychophysics, examining the relationship between psychology and physiology.

Lourie, R.S., and Schwarzbeck, C., "When Children Feel Helpless in the Face of Stress," Childhood Education 55:134-140, 1979.

The authors view typical early childhood stressors as developmental "organizers" (p.134) that aid in learning trust, independence, will and impulse control. Children must go through stressing experiences as they go through developmental stages; the stressors are a necessary part of the learning process. Most children will handle new situations, possible stressors, without great trouble; some will thrive on the experiences and learn from them. These children are labeled "flexible organizers" (p.135). Other children may "disorganize" (p.136) when faced with stressors, feeling helpless and unable to find solutions to problems. These children exhibit this response throughout their developmental stages. Typical responses of disorganizing children are avoidance, withdrawal, dependence, exaggeration of fears, and poor self-image - a pervasive characteristic.

It is recommended that schools be able to identify flexible organizers and disorganizers. Successful organizers are able to deal with learning problems better than disorganizers, and are easier to remediate. To help the disorganizing child, his/her style of disorganization under stress must be identified, as this will suggest appropriate coping methods. Professional help may be useful for extreme cases, and can also help the parent if they have contributed to, or suffer from, the disorganizing pattern.

Miller, William, C., Dealing With Stress: A Challenge for Educators, Fastback 130, Educational Resources Information Center, ED 178 522, Phi Delta Kappa, Bloomington, Indiana, 1979.

Stress can be positive or negative, depending on the individual person, his/her tolerances, perception, attitudes, and need for excitement. Distress can be self-imposed or situational. A lack of appropriate releases from the fight or flight response contributes to a build up of tension in the body. Tension is most harmful to the organs and systems that regulate body functions. Those people not managing stress appropriately are more susceptible to illness because the body's ability to ward off diseases is impaired.

In appropriately handling stress, the mind can regulate and control much through biofeedback techniques, autogenic training, progressive relaxation, and meditation. These techniques can reduce the physical indicators of stress, and thus the negative effects of stress. All involve the important concept of personal control. Other practical concerns include careful diet, regularity of schedule, balanced lifestyle of work and play, and a helpful support system of significant others.

Randall, William T., Stress Management for Educators, Resource Guide, Educational Resources Information Center, ED 193 788, Arizona Educational Information Systems, Tempe, May, 1980.

Stressors in the educational system will affect students. Educators have a responsibility to practice stress management for themselves and to specifically teach stress management to children.

Stress stems from changes in balance that the body and its functions naturally seek. The primitive response of fight or flight and the GAS response are the body's reactions to stress. Individuals' reactions to stress differ, as do the nature of stressors. Eustress is vital to life while distress causes tension related problems.

In looking at the variance in individual reactions, Dr. Meyer Friedman is cited for his work with Type A and Type B behavior patterns. Though Type A people are usually thought of as more productive and successful, Randall cites studies showing Type B to be more successful in the long run, less likely to succumb to burn out or physical ailments. Randall views stress management as learning to move towards Type B's end of the continuum, a less pressed, urgent attitude.

In addition to a person's general perception and behavior type, the handling of traumatic experiences will shape an individual's health, as is measured in Holmes and Rahe's Social Readjustment Scale.

Randall lists the following stress management steps: examine life and attitudes for high stress areas, and adjust goals and behavior accordingly. Practice visualization, relaxation, and aerobic exercise.

Selye, Hans, The Stress of Life, McGraw-Hill Book Company, Inc., New York, 1956, 324 pp.

Hans Selye, the founding father of stress research and education, discusses his life work with stress. The book begins with Selye's early questions, study, and discovery of the existence and nature of physiological stress. Technical descriptions of stress, the General Adaptation Syndrome, the importance of hormones and inflammation, research techniques, procedures, and results are given explicitly.

Selye blends scientific theory with philosophy as he applies the concept of stress and adaptation to medical and mental understanding of psychosomatic concerns, and considerations for life-style, attitudes, and belief systems.

The Stress of Life provides an essential background to an understanding of stress and stress management, as well as a better understanding of the man whose inquiries provided the foundation for much of what is known about stress today.

Selye, Hans, Stress Without Distress, American Library, Inc., New York, 1974, 193 pp.

Selye expands on the application of his research on stress to a philosophy of living. A code of ethics for all mankind can be derived from the laws of nature, specifically the science of stress. The body's physical response to stress is characterized by the General Adaptation Syndrome. Though the pattern of response is the same, the individual result differs according to the interacting stimulus (stressor) and the inner and outer conditions of the individual. We can consciously control our reactions to stress through lifestyle patterns and a philosophy of actions and thoughts. Selye suggests that man can, by adopting a philosophy of altruistic egotism, find his/her personal stress level that minimizes distress by seeking personal fulfillment and interpersonal peace and harmony in an active, purposeful life that benefits self and others.

Sparks, Dennis, Helping Clients Manage Stress: A Practical Approach, Educational Resources Information Center, ED 195 923, National Institute of Education, Washington, DC, 1981.

Sparks writes for the counselor treating stress management as a holistic-health concern. Since the source of distress can be physical, emotional, or cognitive (p.8), the treatment must be appropriate to these areas.

Dr. Hans Selye's findings on stress are reviewed. When faced with a situation producing the GAS response, the body system's lack of appropriate outlet causes residual tension to remain within the system. When not dealt with, the residual tension causes problems for the system - distress. A vicious cycle can result. "Distress negatively affects our health, poor health weakens our ability...to adapt to our stressors. This then increases our distress." (p.19) Distress and eustress vary with individuals, as do situational stressors for the same individual, as with Selye's turtles and racehorses.

The goal for stress management counseling is to minimize distress and maximize eustress through identification of personal stressors, setting boundaries, and management. Stress management may include various relaxation techniques and attitude and perception adjustment. Counseling should include goal setting and problem solving. Counselors are reminded to use stress management in their own lives.

Thoresen, Carl E., and Eagleston, Jean B., "Chronic Stress," Theory into Practice 22:48-56, Winter, 1983.

The authors discuss chronic stress and the importance of the individual's perception of the demand. This determines the stressor's effect on the body system. Research is reviewed relating chronic stress to Type A behavior patterns of demand response. Type A behavioral people have an increased likelihood of cardiovascular disease, some research finding up to twice as likely compared with Type B behavioral pattern people.

Controversy exists over identifying childhood and adolescent diseases as stress induced. Not enough research has been done on chronic stress demands on children. Some researchers say chronic stress is related to passages between developmental stages. Thoresen and Eagleston label the developmental passages as periods of potential demands only, individual perceptions ultimately determining the effects of possible stressors.

Coping resources are suggested: understanding stress and its physiological and emotional effects, practicing relaxation skills, interpersonal relationship development, self-talk, and aerobic exercise. The authors call for continued research in the area of chronic stress and children. In addition, schools should implement programs to teach the above mentioned coping skills.

Youngs, Bettie B., Stress Within Students: Do Educators Cause and/or Prolong it?, Educational Resources Information Center, ED 195 862, n. pub., San Diego, 1979.

The educational setting can be a source of tremendous stress for children. Youngs reviews common stressors throughout childhood, relating them to education.

Dr. Lee Salk is cited for his work in early childhood development. Salk considers a child's stress in this period to be based on the difficulty in communicating infantile needs while being totally dependent on adults. Stress is shown through crying, coping by withdrawal into sleep. If the child is not helped to deal with stress, crying and various forms of withdrawal will become a pattern in later years.

For young school-age children, distress centers around concern about school - unknown teachers, peer reactions, a fear of missing anything, and most pervasive, whether parents will be there after the school day. To prevent a child developing a severe aversion to school, Youngs suggests teachers be consistent, fair, and communicative, parents supportive, and all should be aware of stress indicators, reacting promptly to their presence.

Adolescence is a period of conflict, uncertainty, confusion, and despair (p.8). Tremendous changes take place in body, mind, and emotions. Some stress reactions include moodiness, withdrawal, low self-esteem, skin problems, and discipline problems. Trusted adults to talk with are helpful for the adolescent.

Children should be taught to cope with stress through identifying its symptoms, practicing stress-reducing reactions, goal setting, time management, positive imagery, assertiveness training, and engaging in rewarding hobbies and activities.

STRESS AND THE GIFTED CHILD

Elkind, David, The Hurried Child - Growing Up Too Fast Too Soon, Addison-Wesley Publishing Co., Reading, Maine, 1981, pp.141-163.

Elkind summarizes Dr. Hans Selye's findings on stress, including the stress response, stress disease, and the importance of attitude and perception of the individual in determining the effects of stress. Elkind contends that hurrying children is a stressor, and can take various forms, such as responsibility overload, change overload, emotional overload, school anxiety resulting from fear of violence or drugs, false expectations, misplacement, and tedium, and media information overload or emotional media overload from premature viewing of adult subject matter.

Included is a stress test for children. The instrument assesses recent stressors and assigns a point value for each, similar to the Holmes and Rahe scale. Extremely high scores indicate a possibility for health/behavior concerns.

Clemens, Fred W., and Mullis, H. Thomas, Helping the Gifted Child Cope With Stress, Educational Resources Information Center, ED 212 126, Paper presented at the CEC/TAG National Topical Conference on the Gifted and Talented Child, Orlando, Florida, December, 1981.

While the basic characteristics of gifted children are positive, reports indicate a significant number of gifted children among underachievers, discipline problems and dropouts. These children suffer from unsuccessful coping. Gifted children share the basic fears of all children and have additional sources of stressors, classified by the authors as academic stressors and personal/social stressors.

Non-differentiated curriculum is a major source of academic stressors. Pull-out programs may serve the gifted child on a part-time basis, yet stress may still result from a clash between the gifted and regular teachers. If the gifted child does not fit a gifted stereotype, he/she may not be recognized as a gifted underachiever. A vicious cycle results - stress contributing to underachievement, underachievement masking giftedness, causing distress.

Personal/social stressors stem mainly from teacher and peer rejection. Gifted traits such as verbal precocity and a challenging, questioning mind will exasperate many teachers. Peer rejection can be viewed as the difficulty in finding true peers, as the gifted child's interests and abilities often differ markedly from the majority of his/her age mates.

In dealing with academic and personal/social stressors, the authors recommend a combination of relaxation, desensitization, meditation, positive imagery, bibliotherapy, values clarification, time management, assertiveness training, and exercise. Research has shown the effectiveness of these techniques, but none has been done specifically with gifted children.

Delisle, Jim, "Preventative Counseling for the Gifted Adolescent: From Words to Action," Roeper Review 3:21-25, November/December, 1980.

Delisle describes four specific adjustment problems of the gifted:

1. reconciling differences in intellectual abilities, coping with being gifted and "different", and feelings of inadequacy
2. social alienation
3. inadequate school curriculum, not meeting their needs
4. multitude of educational, career choices

Delisle provides further elaboration and specific, practical activities to facilitate awareness, group discussion, and problem solving. Counseling for these main areas of concern for the gifted should be focused on real-world situations and the potential for conflict, rather than crisis counseling after the fact. An evaluation instrument is included for affective education programs which might include these preventive measures.

Dirkes, M. Ann, "Anxiety in the Gifted: Pluses and Minuses," Roeper Review 6:68-70, November, 1983.

The school setting creates the most stressful situations for gifted children. Traditional education focuses on the convergent while the gifted mind tends to the divergent and creative. Unrealistically high expectations from adults can leave the gifted child feeling guilty when he/she does not excel in all areas. Since a gifted child's abilities differ from most age peers, and from many adults, conflicts in relationships develop. The gifted child can feel a resulting loss of control from these conflicts, leading to lower self-esteem, loneliness, suppression of abilities, and negative changes in personality. On the positive side, moderate amounts of anxiety can stimulate creativity.

In dealing with anxiety and the gifted, Dirkes recommends schools be made aware of stress and its origin in conflicts, and teach the various coping techniques to manage anxiety, returning control to the individual gifted person. Included coping skills are self-talk, meditation, relaxation, and creative problem solving. Dirkes considers the last particularly important for the gifted. Creative problem solving emphasizes divergent thinking, and is essential in a differentiated curriculum. Creative problem solving will help the individual deal with specific situations producing anxiety and tailor the solution to the individual, as stress reactions are individually determined.

Galbraith, Judy, The Gifted Kids Survival Guide, Wetherall Publishing Co., Minneapolis, 1983, pp.115-122.

Stress is harmful when prolonged and/or intense and not dealt with in constructive ways. Stress in gifted children often stems from conflicts such as fear of failure, not fitting in, indecisiveness about future careers, burnout, impatience with unchallenging, dull classes, competition, expectations of self and others, and being teased about abilities. A checklist is provided to help the gifted child determine if he/she is suffering from the negative effects of stress.

To reduce stress, three options are listed:
1. eliminate the cause of the problem
2. change attitude
3. reduce anxiety through stress reducing activity

A feeling of powerlessness pervaded stressed gifted children interviewed for this book. Galbraith concludes that it is imperative that the gifted child accept responsibility for controlling and changing his/her life and response to stress.

Johnson, Christopher, "Smart Kids Have Problems, Too," Today's Education 70:26gs-29gs, 1981.

Johnson cites studies by Joyce VanTassel-Baska showing high percentages, disproportionate to other populations, of drop-outs qualifying as gifted, and gifted students with low and failing grades. He concludes that academic, social, and emotional problems (p.27) block creativity and the full development of potential. Specific problems listed are schools not meeting needs, teachers misinterpreting a questioning nature, rules seen as arbitrary, stereotypes by teachers, stress and tension, self-doubts, perfectionism, extremely high standards for self, hiding problems to uphold image, and peer isolation (p.28gs).

Recommendations for adults dealing with gifted youth include grouping gifted children for discussions, accepting risk-taking ideas, not focusing on failures, encouraging creativity, and permitting independence such as in study projects.

Krueger, Mark L., Project Director, "On Being Gifted," in On Being Gifted, pp.1-37, Written by the participants in the National Student Symposium on the Education of the Gifted and Talented, The American Association For Gifted Children, Walker and Co., New York, 1978, 150 pp.

Twenty gifted teenagers review the pressures encountered by gifted youth and the means of coping they employ. The term "gifted" creates problems of identity for the outstanding young person. The authors were unanimous in their distaste for the term, preferring to be called "talented". Internal pressures stem from a fierce desire to learn, to communicate ideas, to excel yet not be an outcast. Attempts to reconcile ability with social stigmas add to the inner pressure. Peer pressure increases for the gifted adolescent, who often finds him/herself ostracized and teased for the talents they strive to develop. Criticism comes not only from peers, but often from teachers, resentful and threatened by a gifted student. Educational pressure increases with curriculum that doesn't meet the differentiated needs of the gifted.

In dealing with these pressures, the authors recommended the following: get together with other gifted people, develop and maintain a positive self attitude, strive to relate to people of all abilities, read voraciously, develop absorbing hobbies, and seek happiness of self.

Stipek, Deborah J., and Weisz, John R., "Perceived Personal Control and Academic Achievement," Review of Educational Research 51:101-137, Spring, 1981.

The review considers and compares three learning theories and their corresponding studies of student control and achievement. The social learning theory has been most commonly studied, usually by comparing scores on a "locus of control" questionnaire with traditional achievement measures. The studies point to a high correlation between the two; children with an inner locus of control displaying more behaviors conducive to academic achievement. When classroom intervention studies were done, giving children more control positively influenced achievement.

The authors state that children's perception of control can be examined more specifically with the attribution theory. Both ability and effort could be considered as inner locus of control perceptions, but in relation to future tasks, effort would be easier to change than ability. Studies of adults and children differ with this theory, children's studies not being as clear. The authors suggest classroom studies of application be done.

The intrinsic motivation theories view control and motivation as closely linked. Again, more responsibility and control would lead to greater academic achievement. Not many studies have been done, but the authors note that those studies done in the classroom formed a basis for the open classroom movement.

In conclusion, success or failure is as important as the child's perception of the cause of the success or failure. While teachers try to facilitate successes, they should promote students' self-perceptions as being controllers and not the controlled. The authors recommend classroom application studies, studies of efforts to change children's perceptions of control, and an attempt to combine the various models.

Williams, A., "Teaching Gifted Students How to Deal With Stress," The Gifted Child Quarterly 23:136-141, 1979.

Williams cites studies concluding that stress inhibits the creative process, in particular the incubation period (p.136). Stressors include over-evaluation, criticism, depression after intense creative effort, peer pressure, and loneliness.

Williams' experience with gifted children under stress, particularly while engaged in long range independent studies, led her to develop a three-year stress management plan to incorporate in the gifted curriculum. Her subjects were the eighteen seventh graders in the gifted program. The coping model developed corresponds to each step of the independent study method, or scientific model of inquiry. Activities used included creative dramatics and role playing, imagery and meditation, relaxation, and group discussions. Evaluation instruments were pre/post questionnaires for students, teachers, and parents, interview with students, and checklists.

Behavioral changes noted were reduction of fear of failure, willingness to take risks, lessening of approval seeking in the creative process, and an increase in new ideas and self-motivation to explore new ideas. Students viewed as most successful activities that included group discussion, such as imagery and role playing. The students felt that talking with others in similar circumstances helped release their fears.

SELECTED STRESS MANAGEMENT TECHNIQUES

RELAXATION

Benson, Herbert,; Beary, John F.; and Carol, Mark P., "The Relaxation Response," Psychiatry 37:37-46, 1974.

The authors describe the historical use of the relaxation response in various forms as evidenced through the writings and practices of major and minor religions and cultures. Today, the relaxation response is most often induced by methods including autogenic training, progressive relaxation, hypnosis, Transcendental Meditation, Yoga, and Zen. A chart of physiological response measurements during use of the above-mentioned methods is supplied, the researchers noted.

The authors favor daily use of a relaxation response inducing technique, particularly in stressful situations that may elicit the fight or flight syndrome. Further study is recommended to examine possible negative psychological side effects of frequent, sustained use, as well as to determine the best method for various types of people.

Braud, Lendall Williams, "The Effects of Frontal EMG Biofeedback and Progressive Relaxation Upon Hyperactivity and its Behavioral Concomitants," Biofeedback and Self-Regulation 3:69-89, 1978.

Behaviors indicative of hyperactivity include overactivity, short attention span, low frustration tolerance, impulsivity, distractability, and aggressive behavior (p.69). Braud cites studies using biofeedback and/or relaxation tapes with hyperactive children. Positive results were demonstrated for behavior improvement. Braud holds that hyperactive children are overly tense. If drugs do not always relieve tension, then perhaps biofeedback and relaxation training will relieve tension and reduce all negative behaviors.

Braud's study involved two groups of 15 children each, one group diagnosed as hyperactive. Biofeedback machines for temperature and EMG readings, behavioral rating sheets, and psychological tests were used as measurements. The procedure involved twelve sessions of muscle relaxation and biofeedback training. Results showed significantly lowered tension as measured by EMG frontalis muscle, and improved behaviors as measured by scales. Biofeedback was not found to be a better technique than relaxation training, so the latter is recommended since it is less expensive.

For long term treatment, Braud particularly sees a benefit of self-control training over drugs. Self-control training can also be positively related to higher self-esteem. Further recommendations include a longer period of training, including parents in the training, and including mental imagery to foster self-control of the mind as well as the body.

Crowley, Jeremiah A., "Worries of Elementary School Students," Elementary School Guidance and Counseling 16:98-102, December, 1981.

Equating stress with worry, Crowley reviews early research on worries of elementary students. Crowley studied 438 students, in grades three through eight in a mixture of city, suburban, and private southeastern schools. Students listed what they worry about on an unsigned response sheet. Results showed no significant difference between male and female worries, school type, or location. Highest worries included grades, homework, and injury to self or close others. Worries about homework and future vocation increased with age while worries about injury to self and others, being yelled at, and fighting decreased with age. The study found results similar to the early research.

Crowley concludes from listed research and reviews that an appropriate and successful technique to deal with worries is relaxation training that incorporates breath control, specific muscle relaxation, and positive imagery. He recommends relaxation tapes by Keat entitled "Self-Relaxation for Children" that combines all the above. Sessions should begin at once weekly, individually more as needed, until the process is self-controlled and used as needed without the tapes.

Frederick, A.B., Relaxation: Education's Fourth 'R', Educational Resources Information Center, ED 164 497, National Institute of Education, Washington, D.C., January, 1979.

The paper was written to promote the schools as the most effective means of educating people on the techniques of relaxation as a way of coping with tension, thus reducing stress-related disorders and lessen over-dependency on doctors and drugs.

Frederick describes the physiological aspects of bracing and tension control. Since individuals are often not aware of their bracing activity, relaxation education includes recognition and observation of the condition. The basic teaching technique promotes the recognition of the Bell sense by alternately contracting and relaxing specific muscles until the locus of control is discovered and can thereafter be controlled consciously. Frederick does not promote the use of self-suggestion programs, considering them not based on or validated by research.

Koeppen, Arlene S., "Relaxation Training for Children," Elementary School Guidance and Counseling 9:14-21, 1974.

Koeppen lists various causes of tension in elementary children: pressure for achievement, desire for peer approval, family problems, and new tasks. Studies showing reduction in stress through relaxation training are mentioned, as are resources for adults and adolescents. Koeppen suggests the following in using relaxation training: train either in groups or individually, incorporate muscle relaxation with fantasy and imagery, limit sessions initially to fifteen minutes, gradually terminate session endings, and aim for students to use relaxation training without a leader. Scripts for training muscle relaxation are included, noting that repetition will be necessary, particularly during initial sessions.

Lupin, Mimi, and others, "Children, Parents, and Relaxation Tapes," Academic Therapy 12:105-113, 1976.

Based on their study of EMG biofeedback treatment for hyperactive children, the authors consider hyperactive children to suffer from tension to a greater extent than non-hyperactive children. Drug treatment, the usual method of therapy for such children, does not successfully treat concomitant negative emotional behaviors such as irritability, aggressiveness, and distractibility. For home treatment of these anxiety-related disorders, the authors chose to use relaxation tapes rather than the expensive and impractical biofeedback machines. The tapes taught deep muscle relaxation, guided imagery, and attitude and self-control improvement.

Thirteen students from various "minimal brain-injured" classes participated in the study, along with their parents. Measurements included daily parental records, pre/post behavioral scales, pre/post intelligence and visual memory tests, and pre/post behavior coding in the classroom. Results indicated significant improvement in inter-personal relations, appearance of happiness, time on task, and a decrease in nervous behavior (p.110). Children who listened more regularly to the tapes showed more improvement. The authors recognize drawbacks in the study, and recommend further study in these areas: control groups, better parent training, and closer study of time with tapes related to results (p.112). Parental training in relaxation is strongly recommended.

Matthews, Doris B., Alpha Training: A Technique for Changing Behavior in Children and Adults, Educational Resources Information Center, ED 218 563, Paper presented at the Southern Regional Conference of the American Mental Health Counselors Association, October, 1981.

Relaxation training with children has been shown in research to help with conditions of insomnia, asthma, test anxiety, excitable behavior, and hyperactivity (p.7). Matthews discusses the relationship between relaxation and alpha brain waves. When positive imagery is combined with autogenic alpha training for relaxation, studies show a release from stress affected negative learning habits, an increase in positive habits, attitudes, and learning skills if previously blocked by stress. There is contradicting research, however, showing the relation between alpha training and academic achievement.

The author's study of students studying French found no significant enhancement of achievement with alpha training over the non-trained group. However, the alpha group was less disruptive, and fewer students dropped out of the voluntary summer course.

Studies show alpha training helps students gain an inner locus of control. Other reported positive effects include greater concentration, a relaxed state, improved self-confidence, goal setting, and enhancement of creativity (p.20).

Proeger, Charlene, and Myrick, Robert D., Teaching Children to Relax, Educational Resources Information Center, ED 206 393, Florida Educational Research and Development Council, Inc., Ft. Myers, 1980.

Research is cited to support the conclusion that up to 30% of all school-age children suffer from excessive stress as manifested in anxiety and hypertension. Research shows the negative effects of anxiety on school success, intelligence as measured by IQ tests, general achievement, and reading achievement. High anxiety also negatively affects complex learning, problem solving, creativity, and curiosity as measured by specific tests. Other chracteristics related to anxiety include dependence, hostility, aggression, low self-concept, and problems with peer relationships.

Positive results have been reported by teachers using relaxation methods with their classes, including fewer discipline problems, an improvement in interpersonal relations, and an increased feeling of enjoying class. Methods a teacher might try include systematic desensitization, Yoga, Transcendental Meditation, guided fantasy, and deep muscle relaxation. Any method should include teaching awareness of stress in individual situations, the effects on the body, relaxation skills, and application to stressful events. Regular sessions are vital; later each student can use the method on his/her own. Evaluation instruments can include pre/post anxiety scales, achievement tests, and case studies. Ten detailed deep muscle relaxation sessions are provided with the paper (Appendix C).

Severson, Herbert H., The Use of Biofeedback and Relaxation Training by School Psychologists, Educational Resources Information Center, ED 143 945, Paper presented at the annual meeting of the National Association of Student Personnel Administrators, Dallas, March, 1976.

Negative effects of stress, both physical and psychological, are listed, including anxiety and the inability to concentrate. The resulting lower self-esteem and self-confidence negatively affects relationships and decision-making abilities(p.2). Methods to teach self-regulation for reactions to stressors must be used to combat the negative effects of stress, helping children to "develop self-control of bodies, mind, and environment." (p.7)

Severson lists studies using biofeedback and relaxation training in the treatment of hyperactivity and behavior problems. Significantly altered behaviors were noted as clients were trained to lower tension levels and reduce anxiety. Conflicting studies were also listed using standardized achievement tests to measure differences in learning.

Resource books and tapes are listed for various methods - imagery, auto-suggestion, and progressive relaxation. A blending of methods is suggested to help individuals find a method most suitable. The author is studying the effects of various techniques. Teacher training programs and school system pilot programs are also listed.

Tryon, Georgiana Schick, "The Measurement and Treatment of Test Anxiety," Review of Educational Research 50:343-372, Summer, 1980.

While a moderate degree of anxiety or stimulation may facilitate high performance, worryful test anxiety contributes to low performance, especially when combined with negative self-talk. With this assumption, Tryon reviews self-reporting instruments measuring test anxiety. Measurements of the effectiveness of test anxiety treatment usually involves re-testing with one of the self-reporting instruments. Problems include the use of different measurement versions, faked responses by participants, and comparing anxiety treatment with grades.

In reviewing results of methods of treatment, Tryon examines systematic desensitization, relaxation, and cognitive procedures. Systematic desensitization is most widely used. Recommendations are for a combined treatment including study skills counseling, relaxation, and positive self-talk for specific tasks. Suggestions for further research include examining the effects of therapists on groups and seeking credible placebo groups.

Walker, Eugene C., "Treatment of Children's Disorders by Relaxation Training: The Poor Man's Biofeedback," Journal of Clinical Psychology 8:22-25, 1979.

Relaxation training has been shown to aid in the treatment of medical, physical, and psychological disorders of adults and children. The author cites numerous studies using relaxation training successfully for such conditions as anxiety, tension, fear, stress, insomnia, pain, and asthma. The training sessions vary in length, number, and procedure, according to the therapist, individual patient, and situation. More research is needed to determine the specific effects of techniques such as which muscles to start with, live versus taped instructions, and number and length of sessions. Relaxation training has also been used to enhance EMG biofeedback, and it is the author's, and other's, position that relaxation training provides the same feedback/self-control results at a substantially reduced cost.

IMAGERY

Anderson, Craig A., The Effects of Creating Behavioral Scripts on Personal Intentions, Educational Resources Information Center, ED 223 939, Paper presented at the Annual Meeting of the Midwestern Psychological Association, Minneapolis, May 6-8, 1982.

Two experiments were carried out to test the effects of behavioral images on personal intent. The first experiment involved ninety-three college students asked to draw cartoons representing supplied imagined scenarios, given the main character and a plausible target behavior. Pre and post drawings, participants rated the likelihood of their actual intentions for the target behaviors. Results supported the author's sypothesis. Intentions to perform behaviors increased with the self as the main character performing the target behavior in repeated scenarios. Similarly, there was a decrease in intention when the main character (self) repeatedly did not perform the target behavior. Experiment number two was similar to the first one, for replication purposes, and to check for differences in intent after a three day lapse. The original experiment was successfully replicated, and shifts in intent remained the same after three days.

Anderson addresses opposing explanations for the results, in each case the research evidence supporting the original hypothesis. Research by others is in progress to determine if a change in intent will lead to the target behavior actually being performed. Also a subject of future research is the question, "Does script availability influence expectations about other people?" (p.20). Anderson recommends further research on the implications of anxiety and plausibility on the outcome of personal behavioral scripts.

Gowan, J.C., "Incubation, Imagery, and Creativity," Journal of Mental Imagery 2:23-32, 1978.

The brain's right hemisphere is the origin of creative thinking and divergent production. However, the bulk of educational curriculum focuses on the left brain hemisphere and convergent thinking. In order to enhance the creative potential in us all, the author stresses the importance of attending to right hemisphere imagery, enabling the necessary incubation period to lead to creativity. Incubation is viewed as a gestation period (p.31), and right hemisphered imagery as the vehicle for the incubation period to lead to creativity (p.31). Therefore, formal education should include techniques and processes to enhance this state in each student. Right brain images are usually covered up by active verbal left brain daily functions. Techniques to uncover imagery include relaxation, meditation, fantasy, and daydreaming (p.24). Necessary to any of these techniques is a lowering of sensory input.

In addition to citing research on creativity supporting this position, Gowen included statements on creativity by some of the world's artistic and scientific geniuses crediting imagery with providing the breakthrough for their discoveries, inventions, and inspirations.

Kelly, Gary F., "Guided Fantasy as a Counseling Technique With Youth," Journal of Counseling Psychology 19:355-361, 1972.

Kelly describes his use of guided fantasy within his counseling relationships. His goals for its use are to encourage communication and expression of emotions, stimulate progress, help examine specific areas and ideas, and to develop insight. Guided fantasy appeals to a young person's desire to use his/her imagination. Also appealing, Kelly has found, is the aspect of self-control the client experiences during the process, though the scenarios are introduced by the leader or counselor. The fantasy situations can be general, or specific to the individual. After giving the initial introduction to the scenario, the leader may prompt with questions and statements, and may help to change the scene or draw it to a close when appropriate. External stimuli should be kept at a minimum to avoid interference with the fantasy.

After the fantasy, the period of interpretation varies. Some counselors delve deeply into the meanings of each trip, others, like Kelly, do not, but may refer to the experience later. Kelly feels that the experiences themselves have validity and stimulate insight as is. Kelly concludes with two excerpts from guided fantasies (Appendix D).

Lazarus, Arnold A., and Abramovitz, Arnold, "The Use of "Emotive Imagery" in the Treatment of Children's Phobias," Journal of Mental Science 108:191-195, 1962.

Nine children with phobias ranging from fear of dogs to darkness were treated with a method combining reciprocal inhibition and systematic desensitization called emotive imagery. Each child was guided through a personal fantasy involving their favorite hero or greatest desire. Positive emotions were thus induced, followed by introduction of the feared object or situation in a hierarchial fashion. Since the strong positive emotions had been firmly established in the fantasy, anxiety, the opposite response, could not co-exist, by definition of reciprocal inhibition, and would diminish in actuality. Three of the nine case studies were included. Seven in all had been successful in eliminating the phobia in only three to four sessions, sustaining success when checked on a year later. The authors encourage controlled studies of this technique to further define its factors and effects.

Murdock, Maureen H., "Meditation With Young Children," The Gifted Quarterly 23:195-206, 1979.

Murdock relates an account of her year-long meditation program involving a kindergarten class of 25 normal to highly gifted children. Meditation sessions were held at the beginning of each school day. Murdock considers a consistent time and procedure essential. Parents were welcome to attend the sessions, which were called "centering activity" to avoid misconceptions about the term "meditation". Each session began with slow breathing and muscle relaxation. Guided imagery followed, ending with a cool down period with rhythmic breathing. A discussion period enabled students to share ideas, images, and experiences from the sessions.

Positive changes and growth noted during the year were longer periods of concentration, more colorful and creative art work, initiation of meditation sessions at home with family, and more kind and caring treatment of peers. Murdock has also noted success with high school youth when meditation was a part of the counseling process. Resource suggestions are provided.

Morris, J., "Meditation in the Classroom," Learning 5:22-27, 1976.

Meditation is a technique that may include a repeated word or syllable, imagery, specific physical position, or concentration on one thought. Morris lists two basic positive results derived from regular classroom meditation: a decrease in anxiety and increased concentration through practice in concentrating without distraction (p.22). Morris cites a study of inner city children showing a decrease in anxiety and clearer thinking patterns after an eighteen week meditation course. No improvement in academic achievement was noted.

Basic techniques in meditation applicable to the classroom are listed, including sensory awareness, physical movement, concentrative meditation, and guided fantasy. Morris suggests using the term "centering" rather than "meditation" to avoid negative connotations. Also important is the necessity of the teacher/leader practicing meditation regularly on his/her own.

Roodin, Paul, "Imagery: An Overlooked Ability Among the Gifted," Roeper Review 5:5-6, April-May, 1983.

Admid the emphasis on mature adult critical thinking skills and problem solving strategies in gifted education, the importance of imagery should not be diminished. Roodin views imagery as an important part of intellectual and creative development, a viable form of abstract representation. Imagery plays an important part in creative expression, theoretic scientific discoveries, performance rehearsals, and mnemonic memory devices. Successful gifted persons regularly make use of this technique; non-successful persons rarely do. Imagery assists in the development of young people as they imagine future careers, life plans, and relationships. J. Khatena and E.P. Torrence are cited as determining imagery to have a higher correlation with creativity than other predictors.

Singer, Jerome L., "Fantasy: The Foundation of Serenity," Psychology Today 10:32-37, July, 1976.

Singer reviews the importance of fantasy, imagery, and imaginative "inner life" that fosters internal stimulus rather than a reliance on external stimulus. Research, including that done with Herman Rorschach's inkblot tests distinguishing imaginative people from unimaginative, support Singer's research and conclusions: "a well-developed fantasy life seems to be partly responsible for independence, tranquility, and realism" (p.34).

Serious problems were linked to a lack of an inner fantasy life in further research. These included more aggressive tendencies, more impulsive behaviors, as in the author's studies of obese people and hard drug users. Singer refers to these people as victims of external forces due to a lack of testing and trying out of ideas and situations in fantasy that helps develop inner control.

Worthington, Everett L. Jr., and Shumate, Michael, "Imagery and Verbal Counseling Methods in Stress Inoculation Training for Pain Control," Journal of Psychology 28:1-6, 1981.

The research examined the three basic components of stress inoculation training for pain control: imagery, conceptualization, and self-instructions specific to pain control. The subjects were 96 female volunteers from a psychology class, each told to immerse her arm in ice cold water for as long as possible after receiving training in one of the SIT components. Those trained in imagery tolerated the pain best. The conceptualization group managed next best, with those trained in self-instruction finding no help from that technique. This study replicated experiments of the benefits of imagery and combinations of imagery and conceptualization. A review of supporting research suggests imagery is particularly successful when enhancing feelings of self-control. In those cases conceptualization would simply duplicate the already powerful benefits of imagery.

The authors recommend research to compare relaxation and imagery techniques; relaxation seems to benefit combined SIT methods. Also recommended is research within a doctor/patient setting for treatment of clinical pain.

TIME MANAGEMENT

Burden, Paul R., Time Management for Educators, Educational Resources Information Center, ED 210 250, Paper presented at the Rural and Small School Conference, Manhattan, Kansas, November 17, 1981.

The goals of individual time management are to control the use of one's time and to be an effective manager of one's personal and professional life (p.1). Burden lists eight basic principles of time management:

1. know yourself, needs, and use of time
2. set realistic goals, examine obstacles
3. know your work environment
4. plan, form priorities and expectations for self and others
5. know and develop your support system
6. concentrate on what you want to do, lessen interruptions
7. act, don't procrastinate and delay, avoid escape mechanisms, break large tasks down into small steps
8. follow through, finish, be self-disciplined

Worksheets are provided on identifying time wasters, problems, and identifying possibilities for dealing with and solving problems.

Friend, Kenneth E., "Stress and Performance: Effects of Subjective Work Load and Time Urgency," Personnel Psychology 35:623-633, Autumn, 1982.

Friend reviews research concluding that minimal stress can positively help performance in simple or familiar tasks, but increased stress combined with increased difficulty or the need for divergent/creative thinking will negatively affect performance.

The author's study focused on subjective work load and performance in a problem solving situation. Also studied were the effects of time urgency, especially as it relates to Type A people, who often consider time urgency to aid their performance. The study subjects were 39 men in a business training course. The course's pre-test was a knowledge-based test; the post-test used higher level thinking skills and tasks. The students were questioned after the post-test on subjective work load, time urgency and involvement (p.625). An anxiety scale was administered. Results indicated that high levels of subjective work load and time urgency led to lower performance. For both business and education, Friend recommends keeping motivation high while finding ways to reduce subjective work load and time urgency, in testing situations and management positions. Stress reducing techniques should be used to aid persons disposed to these psychological states (p.633).

Gastorf, John W., "Time Urgency of the Type A Behavior Pattern," Journal of Consulting and Clinical Psychology 48:299, 1980.

Time urgency is a characteristic of Type A behavior pattern people. The study measured time urgency from the arrival time of psychology students solicited for a fake questionnaire. The subjects had been selected from those who had completed a Type A/Type B behavior scale. Type A subjects arrived much earlier, over three minutes, than Type B subjects. No arrival time difference was found between the sexes. The author concludes that when doing TypeA/Type B experiments, Type A will arrive early and thus could be identified by a "blind" experiment conductor if familiar with Type A characteristics. Therefore the "blind" conductors should not be familiarized with type characteristics.

Huffstutter, Sandra, "Managing Time and Stress," in School Leadership, pp.247-274, edited by Stuart C. Smith, Jo Ann Massarella, Philip K. Piele, Clearinghouse on Educational Management, Eugene, Oregon, 1981, 343 pp.

Relating time and stress management, Huffstutter considers inefficient use of time to be a stressor. In managing time, self-control and job-control are vital. Lakein's ABC Priority System is referred to, as well as stress awareness instruments such as daily logs and Holmes and Rahe's Social Readjustment Scale.

Major time wasters are identified, as well as ideas for their management. A problem solving approach to time management is presented, along with the coping suggestions of meditation, biofeedback, relaxation, and imagery. Vital in all management techniques is the concept of control rather than helplessness.

Lakein, Alan, How to Get Control of Your Time and Your Life, New American Library, Inc., New York, 1973, 160 pp.

Lakein shares his practical, motivating ideas for gaining control of one's life through controlling one's time. He emphasizes the importance of recognizing goals and making time and energy decisions based on those goals and priorities. From short and long term goals and plans, priority values are assigned to tasks. Lakein's ABC Priority System assigns high priority items (most effectively related to goals) an A, medium priorities B, low items a C. Ranking is individually determined and will vary from day to day, for instance as deadlines loom closer. As many C items as possible should be consolidated, delegated, or eliminated. Lakein's all purpose question, "What is the best use of my time right now?" (p.96) will aid in action decision making, as will his 80/20 rule. Eighty percent of value comes from only twenty percent of the items (p.71). The twenty percent become A priority items.

Important to effective scheduling and actions is discovering one's high energy time during the day, and making the most use of that period. In addition, leisure time, quiet think-time, and rejuvenating breaks will help an individual maintain a well balanced attitude and healthy self. Lakein also deals with blocks to effectiveness, such as procrastination, delay, fear, pressure, and lack of motivation.

McGee-Cooper, Ann, Time Management for Unmanageable People, McGee-Cooper Enterprises, Dallas, 1983, 243 pp.

McGee-Cooper explains the concept of and differences between right and left brain hemisphere functions. Traditional time management techniques emphasize logical left-brain processes. These methods do not work for the person who is right-brained dominant. Gifted children often fit into this latter category, their thinking more imaginative, creative and divergent. McGee-Cooper calls for a balance between the two sides, fostering "whole-brained thinkers" (p.1.15). Gifted children, or any right-brained dominant person, will need to develop a time management system that suits their dominance while fostering whole-brained thinking that uses the best of both sides effectively. It is therefore important to be aware of an individual's dominant side to determine which time management techniques will be most helpful and effective. The author suggests a leader/teacher not force any time management techniques, but, while being an example of an effective time manager, provide ideas to be adapted and improved on by the child. Thus, personal choice and inner control is emphasized.

Impediments to effective time usage are discussed, including psychological rewards for mismanaging time and the importance of individual excitement needs, conclusions of Dr. Dru Scott. Time management basics are presented, such as the importance of play in replenishing energy and creativity, particularly a useful technique for the right-brained person to incorporate in their time management system. Imagery and daydreaming are also suggested to aid planning and to foster right/left brain cooperation.

Neal, Richard G., Managing Time: An Administrator's Guide, Educational Resources Information Center, ED 222 982, Richard Neal Associates, Manasses, Virginia, 1983.

Neal discusses the nature of time, time wasters, and time savers. Though focusing on administrators, most of the time tips are generally applicable.

Common time wasters include not valuing time, poor health, egotism, lack of goals, poor supplies, inability to establish priorities, negative environment, excessive breaks, competition, action without proper thought, failure to identify a problem, and failure to organize (p.8-28). Outstanding time saving ideas include performing several activities at the same time, setting deadlines, deleting activites, analyzing and using creative periods, controlling worry, scheduling activities carefully, breaking large tasks into small steps, maintaining a "to-do" list, handling paper only once, establishing private time, organizing work areas, carrying a note-pad, using spare moments productively, planning each day, forming goals, making decisions promptly, taking the initiative, using experts, learning to speed read, learning to write faster, and monitoring results rather than activities (p.30-42).

Neal considers personal and professional goal setting vital to time management. Defining life goals gives purpose and direction to life and activity. From there, the individual must take control of his/her life and actions.

Ottens, Allan J., "A Guaranteed Scheduling Technique to Manage Students' Procrastination," College Student Journal 16:371-76, Winter, 1982.

The Guaranteed Scheduling Technique was developed as a procrastination intervention method involving self-awareness, reasonable time scheduling, emphasis on accomplishments, and effective work and leisure time. A daily contract is maintained that specifies the amount of time to be spent in efficient, high priority studying. The time varies according to the individual's daily class load. In addition, the student records any self-defeating thoughts or behaviors with the corresponding action taken to replace them. A separate chart is kept recording time contracted and actual time spent. Upon successful completion of four to seven contracts, the student rewards him/her self. The student attends counseling sessions on self-awareness and positive replacement thoughts and behaviors. Total number of formal sessions are usually five to seven. Student reception and results of this program have been positive.

Scott, Dru, Ph.D., How to Put More Time in Your Life, New American Library, Inc., New York, 1980, 226 pp.

Dr. Scott examines the psychology of time management, from the roots of mismanagement to the foundations for effective, personally tailored time management. The book's main themes are clarifying priorities, understanding motivations, and making the most of each day (p.6,7). Personal choices and control are emphasized. No single method or set of rules is dictated, instead basic techniques are suggested to aid in developing an individual style of management. After examining and analyzing an individual's beliefs, attitudes, and behaviors concerning time usage, he/she can then select the techniques needed to help improve ineffective areas. In addition, the book addresses common time management blocks and how to deal with them, time stress, and suggestions for time management at work.

Strang, Harold R., "Time Management Anxiety in Undergraduate Students," College Student Journal 15:365-369, Winter, 1981.

Time management anxiety results from concern about the importance of efficient use of time. The Western culture places a premium on time and its productive potential. Strang's study sought to measure time management anxiety and its presence in college undergraduates. Four hundred ninety University of Virginia students completed a questionnaire on attitudes towards time. Those questions focusing on time management anxiety centered around feelings of loss of control, general apprehension about misuse of time, and worry about others' perception of themselves as efficient or non-efficient time users. Results differed between the sexes, with 32.9% of the males obtaining a high anxiety score, compared with 42.4% of the females. The percentages were closer for those accumulating low anxiety scores, 47.8% and 46.2% respectively.

Additional research is recommended by the author to examine the relation between feelings of time management anxiety and actions, and the relation between high TMA scores and Type A behavior patterns.

Walker, Florence S., and Parkhurst, Anne M., "Identifying Differences in Time Managers," Home Economics Research Journal 11:57-66, 1982.

The study used a time management scale derived through statistical tests of questionnaires completed by 316 traditional middle class Nebraskan families. The questionnaire focused on the managerial techniques of future planning, promptness, and realism of time demands (p.64). Variables were personal, family, and economic characteristics, composite variables such as pace of life, and managerial activities such as time usage and orderly storage. Results indicated that the most significant variables were education, household production (i.e. number of people helping with chores), and social participation. People scoring high in time management were those in their middle adult years, with an above average education, members of a cohesive family, and who, as busy people, considered time management important and had learned to actively engage its use, particularly as their pace of life increased.

Weston, Anita, "Teach Time Awareness in the Classroom," Business Education Forum 35:19,21, March, 1981.

Most time management references focus on adults, but the author suggests that the secondary school student is a more appropriate preventative focus, before the child becomes an adult with ingrained wasteful habits and an over-demanding schedule.

Teachers can set an example for students by their own emphasis on productive time usage. Spare minutes at a period's end can be used to encourage reflection on life goals, and long and short range planning. Teachers should maintain assignment deadlines to encourage and reinforce preparation and planning. Proper emphasis on subject matter is promoted through a decrease in class cancellations for less important activities such as pep assemblies. In addition to modeling effective time management techniques, teachers should specifically teach them along with their subject matter.

SUMMARY

There is a consensus on several major points concerning stress and its management. Stress can stem from physical, emotional, or cognitive sources. Its effect varies according to the individual's perception of the stressor, attitude, and use of stress management techniques. Positive stress, or eustress, can be motivating and is necessary to life. Too much stress handled ineffectively will be debilitating. Stressors can be positive or negative in themselves, but when resulting in harm are considered distressful. To cope with the negative effects of distress, stress management techniques must be learned and applied. These techniques use some form of self=control of mind, emotions, and body.

Dr. Hans Selye was instrumental in pioneering stress research. His definition and demonstration of the physiological existence and effects of stress provided the foundation for later study. Selye's application of physiology to psychology and philosophy helped integrate the components of stress management. Elkind, Sparks, Cassel, and Randall specifically referred to Selye's work with the General Adaptation Syndrome and the fight or flight reaction. The hormonal and chemical changes in the distress reaction are discussed by Selye and Miller.

Manifestations of distress are varied, though most commonly mentioned are anxiety and tension with concomitant behavioral and physiological results. Severson and Frederick defined bracing as one physiological sign of tension. Miller discussed the harm tension can do to the regulatory organs. Walker listed insomnia, pain, and asthma as distress symptoms in children. Frederick added headaches to the list. Lupin and others and Braud found irritability, aggressiveness and distractability to be

anxiety related. Proeger and Myrick added low self-concept and relationship problems, as did Koeppen and Severson. Williams, Johnson, and Proeger and Myrick agreed that stress inhibits creativity. The relationship of excessive stress to specific lifestyle patterns, called Type A, were discussed by Thoresen and Eagleston, Sparks, and Randall.

Aspects of a child's normal development can produce stressors. Youngs discussed typical worries of children, including academic concerns, peer relationships, and conflicts in identity. Elkind added burdensome responsibilities and pressures from modern society to the list.

Gifted children have additional stressors to contend with. Most prevalent is the distress of inadequate differentiation of curriculum for the gifted child. Also agreed upon by Delisle, Clemens and Mullis, Krueger, Galbraith, Johnson, and Williams, were alienation and ridicule by peers and teachers. Internal pressures included self-doubts and perfectionism (Johnson) and career choices (Delisle and Galbraith). Krueger labeled the term "gifted" as stressful to a talented child. Johnson, Clemens and Mullis noted the disproportionately high percentage of gifted children among dropouts, discipline problems, and underachievers as evidence of the debilitating effect of stress on the gifted child.

Thus the need for stress management for adults and children is made clear. The first step, agreed upon by all, is self-awareness. Holmes and Rahe have developed a scale of magnitude for measuring the accumulation of experiences requiring life changes and adjustments, signalling potential stressors. In addition to the Holmes and Rahe scale, Sparks recommended Type A/Type B behavior pattern scales, Huffstutter a daily stress log, and McGee-Cooper included additional inventory scales. Cassel and

Daniels used computers to analyze stress patterns, Daniels through episode cards and Cassel using a combination of biofeedback and compilation of self-reporting lists.

Once an individual is aware of his/her particular stress reactions, various coping methods can be taught. Most commonly recommended were relaxation, imagery, and time management. Benson, Beary, and Carol, and Lazarus and Abramovitz considered the relaxation response as being opposite to anxiety and tension reactions. Relaxation training has been used successfully in the treatment of hyperactive behaviors in children by Lupin and others, Braud, and Severson. Walker used deep muscle relaxation to treat physical disorders in both adults and children. Braud and Severson combined biofeedback and relaxation, Braud and Walker recommended relaxation as a less expensive means of achieving the same result. Specific benefits of relaxation training included improved personal relationships and a decrease in disruptive behaviors (Proeger and Myrick, Severson, and Lupin and others). Matthews and Lupin and others also noted an increase in concentration.

Relaxation was often paired successfully with imagery or guided fantasy. Tryon found positive imagery and self-talk to be the most successful treatment of test anxiety. Worthington and Shumate tested the control of pain and found imagery to work the best, especially when enhancing feelings of self control. They recommended testing the use of imagery and relaxation together. Lazarus and Abramovitz used imagery to cure children's phobias. An increase in concentration was noted by Morris and Murdock through classroom use of guided imagery/fantasy sessions. McGee-Cooper suggested imagery be used as an aid to goal setting for

time and life management. Murdock and Williams noted an increase in student creativity. Imagery and creativity were firmly linked by Gowan and Roodin, imagery being vital to the creative process. Singer viewed fantasy as promoting inner locus of control. Kelly used guided fantasy to facilitate communication and self-awareness in adolescents. Anderson found personal behavioral scripts or fantasies to increase behavioral intent.

Specific combinations of relaxation and imagery were also used and recommended by Koeppen, Severson, Braud, Matthews, Lupin and others, Tryon, Murdock, and Morris. Frederick was alone in his preference for deep muscle relaxation without autogenic methods, calling the latter a "placebo of the mind" (p.7). He did acknowledge its possible benefit for some individuals, however.

Caution was recommended by Morris and Murdock in using terms such as "meditation". Possible public relations problems could result. Such terms as "centering" and "relaxation time" seemed less controversial.

Time management and stress management were specifically related by Huffstutter, McGee-Cooper, Ottens, Strang, Friend, Gastorf, Walker and Parkhurst, Graff, and Benson, Beary, and Carol. Time urgency, pressure and inefficient time usage are stressors. Time urgency was shown to be a common characteristic of Type A behavior pattern people by Gastorf.

Scott explained the psychology of inefficient time usage and applied it to self-motivating time management. Friend's study showed that excessive time urgency had a negative correlation with performance, particularly when higher level thinking skills were involved. Otten's work with procrastinators showed that anxiety over time usage often

blocked the ability to enjoy or use productively work or leisure time.

Lakein promoted controlling one's life through controlling one's time. Actions should be based on priorities derived from personal and professional goals. His 80/20 rule and ABC Priority System are methods of effective use of actions for the most effective results. Huffstutter based her time management ideas on Lakein's. Self awareness and time use analysis were recommended by Lakein, Scott, Huffstutter, Burden, and McGee-Cooper. Specific tips on eliminating time wasters were given by the same authors. Walker and Parkhurst studied the difference between efficient and inefficient time users and found that busy people have forced themselves to learn time management techniques in order to cope successfully with an active lifestyle.

Using Scott's ideas on the psychology of time management, McGee-Cooper's book was a break from traditional time management techniques. She said that traditional methods are not suited for right-brained dominant people and these people will need to develop their own methods to suit their playful, creatively oriented attitudes.

Throughout the studies and reports, one major theme developed - that of the importance of returning control to the individual. In talking with stressed gifted youth, Galbraith noted their pervasive feeling of powerlessness. Strang noted that time usage anxiety involved feelings of loss of control. Stipek and Weisz strongly linked a perception of inner control of self and environment to motivation and achievement. Dirkes, Morris, and Gmelch recommended stress management techniques that return control to the individual. The importance of physical control in progressive relaxation was noted by Frederick. Severson and

Miller stressed the individual's ability to control his/her mind which can then regulate the body. One goal of relaxation training is to encourage the individual to control the relaxing state and eventually use the method on his/her own as needed.

Imagery was considered to promote inner locus of control by Singer, and imagery was most successful in pain control when used to enhance feelings of self control in Worthington and Shumate's study. Matthews' study showed that alpha trained subjects gained more of a sense of inner locus of control, and Allen considered the shift towards inner control to be an essential ingredient of the success of the University of Maryland stress management course. An advantage of using relaxation training over drug treatment for hyperactive related behavior disorders was the aspect of self control instilled in the children, this noted by Braud. Lakein and Burden linked control of time to self-control of one's life.

Other stress management methods were proposed by the authors but not examined in this study. Gmelch, Graff, Randall, and Thoresen and Eagleston included exercise. Sparks, Dirkes, and Delisle recommended problem solving, especially for gifted children, for whom problem solving is a vital component in a differentiated curriculum. The benefits of group discussion were noted by Delisle, Johnson, Krueger, Williams, and Murdock, again especially for gifted children who need to meet with others sharing their unique characteristics and problems.

Other recommendations included a call for schools to teach stress management. Dirkes, Randall, Thoresen and Eagleston, Frederick, Weston, and Morris agreed on this point. In addition, parental training was suggested by Laurie and Schwarzbeck, and Lupin and others. Proeger and

Myrick, Frederick, Morris, Weston, and Sparks specifically mentioned the importance of a teacher/leader of stress management to be using the techniques in his/her own life.

Suggestions for further research were numerous. Thoresen and Eagleston suggested further research be done with chronic stress and children. Lupin and others, and Tryon called for studies in relaxation and imagery using control groups. Worthington and Shumate suggested research be done to examine the combination of relaxation and imagery methods. Walker called for research into the procedural details of relaxation training, and Lupin and others suggested parental training in relaxation be examined. Lazarus and Abramovitz suggested further study with guided imagery as a method of treating phobias, and Anderson called for research on actual behavioral changes following the increased intent created by personal imaging scripts. Allen will examine the long term effects of stress management as well as its effect on participants' health. Finally, Clemens and Mullis called for research on the specific effects of stress management on the gifted child.

CONCLUSION

Stress is both a positive and negative force for every individual. Eustress is motivating and stimulating, necessary for a full life. Distress can result in debilitating physiological and psychological trauma. Much depends on the individual's perceptions, attitudes, and interaction with stressors. The goal of stress management is to maximize eustress and minimize distress by returning control of body, mind, and environment to the individual. This is done through combinations of stress management techniques, such as relaxation, imagery, and time management. Other methods are available, and the individual will decide through stress self-awareness and analysis which will work the best for him/her.

Research shows the benefits relaxation training, imagery, and time management provide as stress management techniques. All three promote a sense of inner control in the individual while aiding him/her in coping with the physical, emotional, and cognitive effects of stressors.

Children, as well as adults, are affected by stress and will benefit from stress management. However, gifted children are particularly subject to distress as a result of their inner characteristics and treatment from age mates, adults, and an educational system that does not always meet their needs. Any school system that strives to differentiate curriculum for the gifted child has a responsibility to address the problem of stress by incorporating stress management in gifted education.

RECOMMENDATIONS

It is recommended that:

1. Stress management be incorporated in a gifted education curriculum.
2. Stress management should involve stress self-awareness and analysis.
3. Relaxation training, imagery, and time management be taught in the stress management program, as these are particularly relevant for the gifted child.
4. The gifted child be encouraged to apply and adapt the techniques on an individual basis.
5. With any stress management method, the individual's sense of inner control be strengthened.
6. The stress management teacher/leader should be applying the principles of stress management in his/her life.

BIBLIOGRAPHY

Allen, Roger J., Evaluation of Stress Management Education: The University of Maryland Model, Educational Resources Information Center, ED 217 204, n. pub., College Park, Maryland, 1980.

Anderson, Craig A., The Effects of Creating Behavioral Scripts on Personal Intentions, Educational Resources Information Center, ED 223 939, Paper presented at the Annual Meeting of the Midwestern Psychological Association, Minneapolis, May 6-8, 1982.

Benson, Herbert, The Relaxation Response, William and Morrow and Company, New York, 1976, 158 pp.

Benson, Herbert,; Beary, John F.; and Carol, Mark P., "The Relaxation Response," Psychiatry 37:37-46, 1974.

Braud, Lendall Williams, "The Effects of Frontal EMG Biofeedback and Progressive Relaxation Upon Hyperactivity and its Behavioral Concomitants," Biofeedback and Self-Regulation 3:69-89, 1978.

Burden, Paul R., Time Management for Educators, Educational Resources Information Center, ED 210 250, Paper presented at the Rural and Small School Conference, Manhattan, Kansas, November 17, 1981.

Cassel, Russell N., "The Computerized-Biofeedback Personal Needs Map (STRMAP)," Education 103:210-214, Spring, 1983.

Clemans, Fred W, and Mullis, H. Thomas, Helping the Gifted Child Cope With Stress, Educational Resources Information Center, ED 212 126, Paper presented at the CEC/TAG National Topical Conference on the Gifted and Talented Child, Orlando, Florida, December, 1981.

Crowley, Jeremiah A., "Worries of Elementary School Students," Elementary School Guidance and Counseling 16:98-102, December, 1981.

Daniels, Craig E., Computer Analyzed Stress-Episode Cards: A Self-Awareness Feedback Technique, Educational Resources Information Center, ED 214 037, Paper presented at the Annual Meeting of the Eastern Psychological Association, New York, April 22-25, 1981.

Delisle, Jim, "Preventative Counseling for the Gifted Adolescent: From Words to Action," Roeper Review 3:21-25, November/December, 1980.

Dirkes, M. Ann, "Anxiety in the Gifted: Pluses and Minuses," Roeper Review 6:68-70, November, 1983.

Elkind, David, The Hurried Child - Growing Up Too Fast Too Soon, Addison-Wesley Publishing Co., Reading, Maine, 1981, pp.141-163.

Frederick, A.B., Relaxation: Education's Fourth 'R', Educational Resources Information Center, ED 164 497, National Institute of Education, Washington, DC, January, 1979.

Friend, Kenneth E., "Stress and Performance: Effects of Subjective Work Load and Time Urgency," Personnel Psychology 35:623-633, Autumn, 1982.

Galbraith, Judy, The Gifted Kids Survival Guide, Wetherall Publishing Co., Minneapolis, 1983, pp.115-122.

Gastorf, John W., "Time Urgency of the Type A Behavior Pattern," Journal of Consulting and Clinical Psychology 48:299, 1980.

Gmelch, Walter H., "Stress for Success: How to Optimize Your Performance," Theory into Practice 22:7-14, Winter, 1983.

Gowan, J.C. "Incubation, Imagery, and Creativity," Journal of Mental Imagery 2:23-32, 1978.

Graff, Dawn, editor, "Student Stress," Current Health 1 7:3-8, November, 1983.

Holmes, Thomas H., and Rahe, Richard H., "The Social Readjustment Rating Scale," Journal of Psychosomatic Research 11:213-218, 1967.

Huffstutter, Sandra, "Managing Time and Stress," in School Leadership, pp.247-274, edited by Stuart C. Smith, Jo Ann Masserella, Philip K. Piele, Clearinghouse on Educational Management, Eugene, Oregon, 1981, 343 pp.

Johnson, Christopher, "Smart Kids Have Problems, Too," Today's Education 70:26gs-29gs, 1981.

Kelly, Gary F., "Guided Fantasy as a Counseling Technique With Youth," Journal of Counseling Psychology 19:355-361, 1972.

Koeppen, Arlene S., "Relaxation Training for Children," Elementary School Guidance and Counseling 9:14-21, 1974.

Krueger, Mark L., Project Director, "On Being Gifted," in On Being Gifted, pp.1-37, Written by the participants in the National Student Symposium on the Education of the Gifted and Talented, The American Association For Gifted Children, Walker and Company, New York, 1978, 150 pp.

Lakein, Alan, How to Get Control of Your Time and Your Life, New American Library, Inc., New York, 1973, 160 pp.

Lazarus, Arnold A., and Abramovitz, Arnold, "The Use of 'Emotive Imagery' in the Treatment of Children's Phobias," Journal of Mental Science 108:191-195, 1962.

Lourie, R.S., and Schwarzbeck, C., "When Children Feel Helpless in the Face of Stress," Childhood Education 55:134-140, 1979.

Lupin, Mimi, and others, "Children, Parents, and Relaxation Tapes," Academic Therapy 12:105-113, 1976.

Matthews, Doris B., Alpha Training: A Technique for Changing Behavior in Children and Adults, Educational Resources Information Center, ED 218 563, Paper presented at the Southern Regional Conference of the American Mental Health Counselors Association, October, 1981.

McGee-Cooper, Ann, Time Management for Unmanageable People, McGee-Cooper Enterprises, Dallas, 1983, 243 pp.

Miller, William, C., Dealing With Stress: A Challenge for Educators, Fastback 130, Educational Resources Information Center, ED 178 522, Phi Delta Kappa, Bloomington, Indiana, 1979.

Morris, J., "Meditation in the Classroom," Learning 5:22-27, 1976.

Murdock, Maureen H., "Meditation With Young Children," The Gifted Quarterly 23:195-206, 1979.

Neal, Richard G., Managing Time: An Administrators' Guide, Educational Resources Information Center, ED 222 982, Richard Neal Associates, Manasses, Virginia, 1983.

Ottens, Allan J., "A Guaranteed Scheduling Technique to Manage Students' Procrastination," College Student Journal 16:371-76, Winter, 1982.

Proeger, Charlene, and Myrick, Robert D., Teaching Children to Relax, Educational Resources Information Center, ED 206 393, Florida Educational Research and Development Coucil, Inc., Ft. Myers, 1980.

Randall, William T., Stress Management for Educators, Resource Guide, Educational Resources Information Center, ED 193 788, Arizona Educational Information Systems, Tempe, May, 1980.

Roodin, Paul, "Imagery: An Overlooked Ability Among the Gifted," Roeper Review 5:5-6, April-May, 1983.

Rozman, Deborah, Meditation for Children, Celestial Arts, Millbrae, California, 1976, 151 pp.

Scott, Dru, Ph.D., How to Put More Time in Your Life, New American Library, Inc., New York, 1980, 226 pp.

Selye, Hans, The Stress of Life, McGraw-Hill Book Company, Inc., New York, 1956, 324 pp.

Stress Without Distress, American Library, Inc., New York, 1974, 193 pp.

Severon,Herbert H., The Use of Biofeedback and Relaxation Training by School Psychologists, Educational Resources Information Center, ED 143 945, Paper presented at the annual meeting of the National Association of Student Personnel Administrators, Dallas, March, 1976.

Singer, Jerome L., "Fantasy: The Foundation of Serenity," Psychology Today 10:32-37, July, 1976.

Sparks, Dennis, Helping Clients Manage Stress: A Practical Approach, Educational Resources Information Center, ED 195 923, National Institute of Education, Washington, DC, 1981.

Stipek, Deborah J., and Weisz, John R., "Perceived Personal Control and Academic Achievement," Review of Educational Research 51:101-137, Spring, 1981.

Strang, Harold R., "Time Management Anxiety in Undergraduate Students," College Student Journal 15:365-69, Winter, 1981.

Thoresen, Carl E., and Eagleston, Jean R., "Chronic Stress," Theory into Practice 22:48-56, Winter, 1983.

Tryon, Georgiana Schick, "The Measurement and Treatment of Test Anxiety," Review of Educational Research 50:343-372, Summer, 1980.

VanTassel-Baska, Joyce, Gifted, Creative, Talented Children, lectures, Purdue University, June 11, 12, 15, 17, 19, 1981.

Walker, Eugene C., "Treatment of Children's Disorders by Relaxation Training: The Poor Man's Biofeedback," Journal of Clinical Psychology 8:22-25, 1979.

Walker, Florence S., and Parkhurst, Anne M., "Identifying Differences in Time Managers," Home Economics Research Journal 11:57-66, 1982.

Weston, Anita, "Teach Time Awareness in the Classroom," Business Education Forum 35:19,21, March, 1981.

Whitmore, J.R., Giftedness, Conflict, and Underachievement, Allyn and Bacon, Boston, 1980, 231 pp.

Williams, A., "Teaching Gifted Students How to Deal With Stress," The Gifted Child Quarterly 23:136-141, 1979.

Worthington, Everett L. Jr., and Shumate, Michael, "Imagery and Verbal Counseling Methods in Stress Inoculation Training for Pain Control," Journal of Psychology 28:106, 1981.

Youngs, Bettie B., Stress Within Students: Do Educators Cause and/or Prolong it?, Educational Resources Information Center, ED 195 862, n. pub., San Diego, 1979.

APPENDIX

APPENDIX

Appendix A

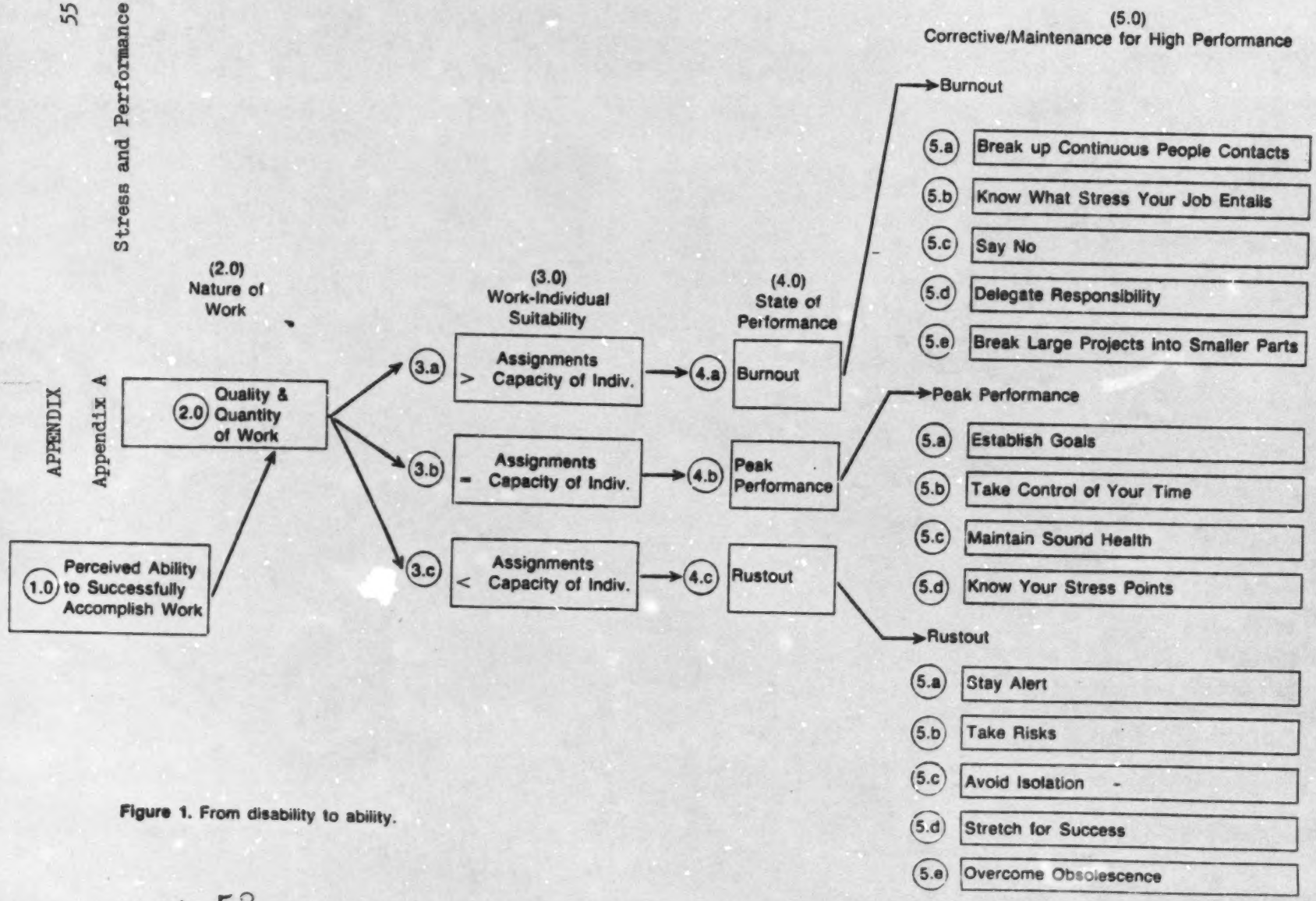


Figure 1. From disability to ability.

53

Gmelch, Walter H., "Stress for Success: How to Optimize Your Performance," Theory into Practice 22:7-14, Winter, 1983.

59

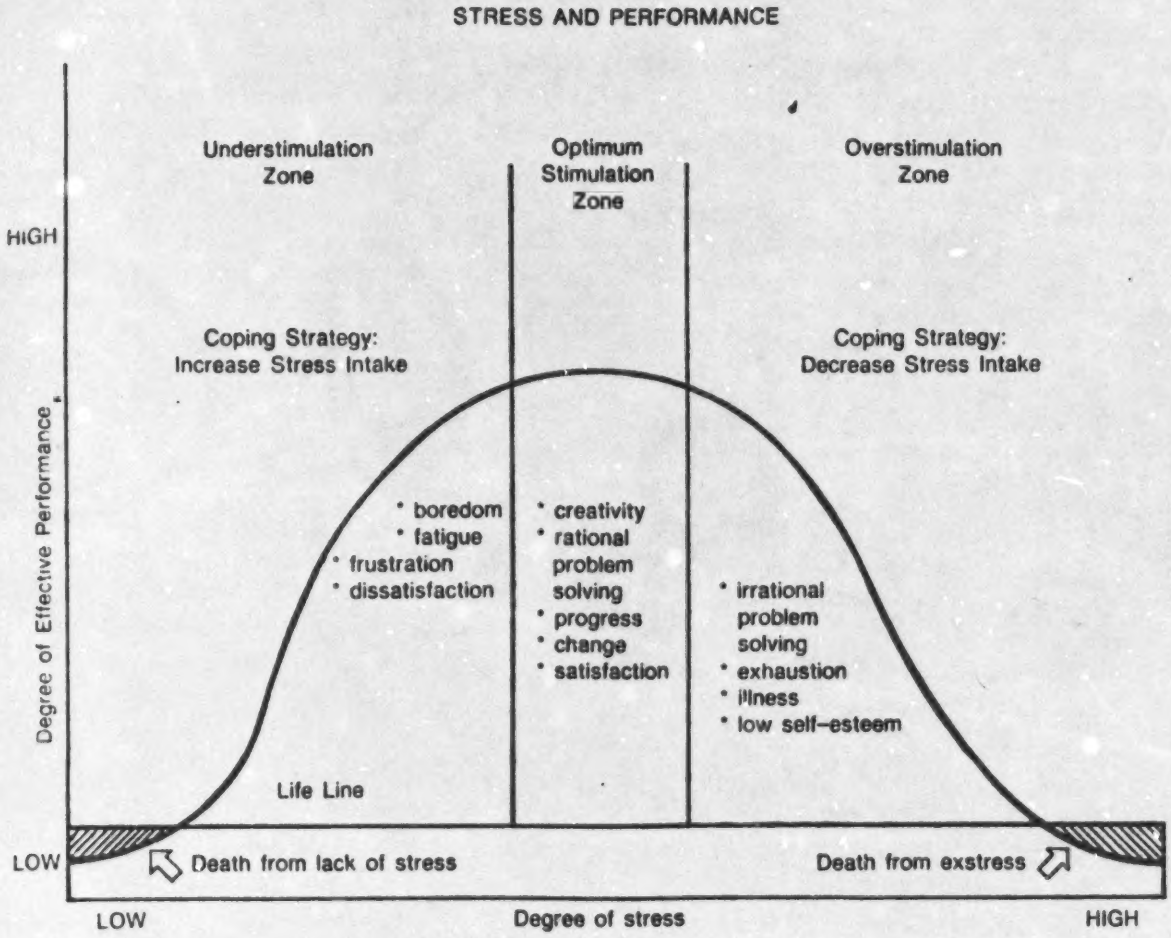


Figure 2. The stress and performance curve.
Adapted from *Beyond Stress to Effective Management* (Gmelch, 1982), p. 29. ©1982. Printed with permission.

Gmelch, Walter H., "Stress for Success: How to Optimize Your Performance," Theory into Practice 22:7-14, Winter, 1983.

Appendix B

Table 1

Concomitant Difficulties Potentially Associated with Positive Traits of the Highly Gifted

Traits	Difficulties
Supersensitivity of the nervous system and accompanying acute perceptiveness	Physical tension, "hyperactivity," distractibility; Emotional strain--awareness of social responses to him; Feelings of isolation and rejection.
Perfectionism	Feelings of inadequacy, unrealistic expectations, and "perceived failure" derived from the high expectations of self and adults.
Independence	A seemingly rebellious or disruptive nature, tends to challenge and question indiscretely; Develops feelings of resenting the constraining structure of the classroom which leads to unhappiness at school.
Initiative	Wants to have a choice, to be able to pursue interests, to function in an environment with minimal limitations and structure; this leads to difficulty when the child cannot ac[illegible] the limitations of time, space, or [illegible]ources for activities.
Intense drive to explore, to discover, to master, to know, and to be creative	Behavior that appears to be stubborness, disruptiveness, and "off task" (pursuit not appropriate for the assignment); these behaviors can produce resentment or irritation in adults and peers which further results in social cirticism.
Advanced problem solving skills	May tend to dominate discussions or activities, or to respond with passive boredome to shallow curriculum (convergent and memory exercises, repetition, practice); Often moves ahead of the class and may perceive resentment of his skills and achievement.
The distinct learning style of the highly gifted and creative	Causes the child to be unresponsive to many traditional teaching methods and curricula--e.g., math pages, drill exercises, grammar and traditional reading groups; frequently the child appears "lazy" or "unmotivated" to the teacher.

From Whitmore, J. R. Giftedness, Conflict, and Underachievement. Boston: Allyn and Bacon, 1980.

BEST COPY AVAILABLE

Appendix C

Deep Muscle Relaxation Session

Unit Two - Relaxing the Arms

Objectives

Children will learn to relax their arms by tensing and relaxing their muscles. They will continue to become aware of the feelings of tension and relaxation.

Exercises

Discussion "Think about the time since our last meeting. Can you remember when you were tense? Were there times when you were relaxed? (Help them to talk about these situations and their feelings.)

"Did anyone remember to practice the exercises? When did you practice? What was it like? Can you think of any times that you might have practiced relaxation, but did not? These exercises can help us when we get tense or nervous. Today we are going to learn another relaxation exercise."

Relaxation training "Settle down and get comfortable. Put your hands and legs where they are comfortable. Just sink down and relax. Close your eyes and keep them closed.

"Now, bend your right arm at the elbow and tighten the muscles in your arm. Hold them real tight. As tight as you can. Now, let go. Relax and let your muscles go soft and limp, very relaxed. Let's try that again. Bend your right arm at the elbow and tighten your arm muscles. Hold them very tight. As tight as you can. (Pause for 10 seconds.) Now relax. Let your arm go loose and relaxed. Feel the pleasant feeling of relaxation flow through your arm. Relax your arm completely. (Pause

10 seconds.) Once again, now. Bend your arm at the elbow and tighten all your muscles. Hold them as tight as you can. (Pause 10 seconds.) Now, let your arm go limp and relaxed. Feel your arm relax completely. Let it be as limp as a wet washcloth. Feel how good it feels to be so relaxed. (Repeat for left arm.)

"Now, when I count to three, I want you to open your eyes. One, coming up; two, almost awake; and three, you can open your eyes."

Discussion "What was that like? Was it difficult to relax? What was the hardest thing about relaxing? How about the difference in your muscles? Could you feel the difference between when they were tight and when they were relaxed? What was that like?"

Follow-up activity "During the next few days, I want you to pay attention to times you feel tense and times you feel relaxed. Try to find a time to practice these exercises. Before bed is a good time. We will talk more about relaxation next time."

Proeger, Charlene, and Myrick, Robert D., Teaching Children to Relax, Educational Resources Information Center, ED 206 393, Florida Educational Research and Development Council, Inc., Ft. Myers, 1980, pp.33-34.

Appendix D

Guided Fantasies

"You are drifting in a rowboat with fog all around. Things are very quiet and still. You decide that you want to reach shore somehow, so you begin to row through the fog. Tell me what happens."

"You are standing in front of a cave. It has a large door on it; there is something behind the door trying to get out. Go up to the cave, open the door, and see what happens."

Kelly, Gary F., "Guided Fantasy as a Counseling Technique With Youth," Journal of Counseling Psychology 19:355-361, 1972, p.358.

Realize you are master of your consciousness and you can change anything into love and light with your imagination and will. Your imagination and will are like an angel with a magic wand ready to serve you.

Rozman, Deborah, Meditation for Children, Celestial Arts, Millbrae, California, 1976, 151 pp.

SPACESHIP MEDITATION

Imagine there is a spaceship inside of your head. Step inside your spaceship, right in the center of your head. See what color it is. Feel it take off and go all the way through the top of your head, up, up, up, past millions of planets and stars on its way . . . up, up, up . . . keep going up, forever . . . observe what you see . . . now go all the way down in your spaceship . . . down, down, down . . . down, down through the center of the earth and out the other side, down, down, down . . . forever . . . down . . . Now go up again, up, up, up . . . all the way up, higher and farther this time, up, up, up . . . now go all the way to the left . . . farther and farther . . . forever to the left . . . now all the way to the right . . . farther, farther, farther, farther . . . look around at what you see . . . Now come back to center space station and go all the way forward, straight in front, straight on, farther, farther, farther . . . What do you hear? . . . farther . . . and now go all the way back, behind, back, back, farther back, on and on, farther and farther, back, back . . . . . .Now, come back slowly to the center . . . come back into the top of your head and now you are inside your head again. Step out of your spaceship. You have traveled over and through the entire universe. You are the light of the entire universe . . . Open your eyes, look around your little universe here. What did you see in your universe? Meditate on the whole universe as something you experience inside your own awareness, inside your own consciousness . . .

JOURNEY THROUGH INNERSPACE

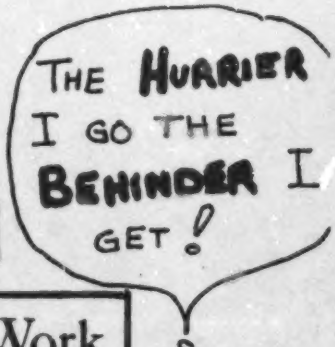
Concentrate at the center between the eyebrows inside the head. This is the spiritual eye. Stare at it for a little bit, being perfectly quiet. Now move your awareness to the very top of your head, at the center top of your brain. Feel a lightness and imagine a funnel of energy, like a white tornado, coming in the top of your head. Feel the two centers connect, the one between the eyebrows and the one on top of the head. Feel like you are taking a blissful brain bath in the energy . . . Now move your awareness to the back of your neck and the energy flowing in there too . . . move down to your heart center and feel all the other centers come together in the heart center, the center of our love. Feel them all become one center. The center between your eyebrows, the top of your head, the back of your neck and your heart all become One . . . Now let's chant the sound Om through our heart on a wave of love to fill the whole universe with music, with love. *Ooooooommmmmmmmm Oooooommmmm* . . . Listen in the still silence . . . feel the energy flow on into your stomach and then into the very bottom of your spine. Imagine that we are bringing all this energy back down to earth and grounding it here on the earth, ready to go into whatever activity we are going to do. Stop. What needs to be done next? Think. How are you going to do it? Open your eyes and share what it is you want to do. If okay, then do it . . .

EVERYTHING IS HAPPENING INSIDE OF YOU

Close your eyes and sit up in meditation posture. Breathe in the air deeply through your nose. Feel your nose smelling. What tells you that you are smelling? . . . Your brain receives the messages from the nerves in your nose . . . What tells you what you are hearing? . . . Your brain receives the messages from the ears . . . Now taste the taste in your own mouth . . . What is telling you about the

FOR KIDS

WHAT ARE YOUR PROBLEMS WITH TIME?



SELF EVALUATION

Home or Personal	School/Work

LIST ALL THAT COME TO MIND. THEN PUT STARS BY THE ONE BIGGEST PROBLEM ON EACH SIDE.

NOTE: A BASIC SKILL ESSENTIAL IN TIME MANAGEMENT IS THE ABILITY TO IDENTIFY THE PROBLEMS. A SECOND ESSENTIAL SKILL IS THE ABILITY TO SET PRIORITIES.

2.7

COPYRIGHT © 1983 ANN MCGEE-COOPER

McGee-Cooper, Ann, Time Management for Unmanageable People, McGee-Cooper Enterprises, Dallas, 1983, 243 pp.

FOR KIDS

1. DO YOU FORGET ABOUT HOMEWORK ASSIGNMENTS AND LEAVE YOUR BOOKS AT SCHOOL? THEN, AT THE LAST MINUTE DO YOU RACE AROUND TRYING TO GET THE WORK BY PHONE OR BORROW SOMEONE ELSE'S BOOK?

   OFTEN___ SOMETIMES___ NEVER_____

2. DO YOU MISPLACE YOUR JACKET, LUNCH OR BOOKS AND HAVE YOURSELF IN AN UPROAR TRYING TO FIND THEM WHILE YOUR RIDE HONKS IMPATIENTLY OUT FRONT?

   OFTEN___ SOMETIMES___ NEVER_____

3. DO YOU PUT OFF BIG ASSIGNMENTS LIKE MAJOR TESTS, BOOK REPORTS, SCIENCE PROJECTS, AND THEN HAVE TO STAY UP ALL NIGHT OR GET THE WHOLE FAMILY INVOLVED TRYING TO HELP YOU MAKE THE DEADLINE?

   OFTEN___ SOMETIMES___ NEVER_____

4. DO YOU OVERSLEEP AND WAKE UP JUST IN TIME TO GRAB YOUR CLOTHES AND DASH MADLY TO CLASS?

   OFTEN___ SOMETIMES___ NEVER_____

5. PUT OFF CHORES WHILE YOU WATCH TV, TALK ON THE PHONE, OR PLAY VIDEO GAMES UNTIL YOUR LIFE IS IN DANGER WITH YOUR MOM OR DAD BECAUSE "THAT GARBAGE STILL HASN'T BEEN TAKEN OUT!"

   OFTEN___ SOMETIMES___ NEVER_____

COPYRIGHT © 1983 ANN MCGEE-COOPER

4.6

McGee-Cooper, Ann, Time Management for Unmanageable People, McGee-Cooper Enterprises, Dallas, 1983, 243 pp.